



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,914	05/11/2001	Cord F. Stahler	100564-00051	3624

6449 7590 09/04/2003

ROTHWELL, FIGG, ERNST & MANBECK, P.C.
1425 K STREET, N.W.
SUITE 800
WASHINGTON, DC 20005

EXAMINER

CELSA, BENNETT M

ART UNIT	PAPER NUMBER
----------	--------------

1639

DATE MAILED: 09/04/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

File copy

Office Action Summary

Application No.

09/763,914

Applicant(s)

STAHLER ET AL.

Examiner

Bennett Celsa

Art Unit

1639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 7,8 and 12-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1. 6) ☐ Other:

DETAILED ACTION

Status of the Claims

Claims 1-33 are currently pending.

Claims 1-6 and 9-11 are under consideration.

Claims 7-8 and 12-33 are withdrawn from consideration as being directed to a nonelected invention.

Election/Restrictions

Applicant's election with traverse of Group I (claims 1-11) in Paper No. 9 is acknowledged. The traversal is on the ground(s) that claim 1 is a proper linking claim patentable over the prior art; requesting rejoinder of Groups III-VI. This is not found persuasive for the reasons provided in the lack of unity (e.g. see pages 2-3 of prior office action) e.g. recitation of distinct and separately burdensome methods and the lack of a special technical feature.

Applicant's further election with traverse of nucleotides as the elected speciesw which reads on claims 1-6 and 9-11 in Paper No. 9 is acknowledged. The traversal is on the ground(s) that "[I]t is believed that claim 1 is patentable, so that all of the species should be examined in this application". This is not found persuasive for the reasons provided in the requirement for election of species (e.g. see pages 3-4 of prior office action) e.g. methods drawn to structurally diverse and distinct species that require different and separately burdensome searches.

The requirements are still deemed proper and is therefore made FINAL.

Specification

The disclosure is objected to because of the following informalities:

a. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

b. The specification does not contain a "Brief Description of the Drawings".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6 and 9-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (e.g. NEW MATTER REJECTION).

During PCT practice, claim 1 (and dependent claims thereon) was amended to recite, "at least one *closed* channel ..." which lacks direct specification support; nor is there representative support provided in the specification. Applicant is required to point out where said specification support exists or cancel the new matter in response to this rejection.

Priority

This application repeats a substantial portion of prior Application No. PCT/EP99/06317 (as originally filed on 8/27/99) but adds and claims additional disclosure not presented in the prior application (see the new matter rejection above). Since this application names an inventor or inventors named in the prior application, it may constitute a continuation-in-part of the prior application. Should applicant desire to obtain the benefit of the filing date of the prior application, attention is directed to 35 U.S.C. 120 and 37 CFR 1.78.

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56 which occurred between the filing of the parent PCT application and the (improper: e.g. new matter not permitted under 35 USC 371) filing of the present application under 35 USC 371.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dehlinger WO 97/19749 (6/97) and Winkler et al. US Pat . No. 5,677,195 (10/97).

Dehlinger teaches the use of an array (e.g. "at least one") of "tubes" (e.g. capillaries i.e.. "closed channel supports) to which "polymeric receptors" (e.g. "nucleotides") are "site and/or time" immobilized on the surface in predetermined positions (e.g. "position addressable") thereof by passing a liquid containing nucleotide monomers which are individually polymerized for ultimate use in analyte screening assays. See e.g. abstract; pages 4-6; examples and claims.

The Dehlinger reference method differs from the presently claimed invention by

failing to explicitly teach light induced polymerization (e.g. of the polymeric receptor).

However, Winkler et al. teach that light polymerization can be alternatively used in microchannel array syntheses (e.g. see patent claims) as a means of inducing polymerization (e.g. of the polymeric receptor) (ie. "However, in some cases it is desirable to have alternative/additional methods of forming polymer sequences which would not utilize, for example, light as an activator, or which would not utilize light exclusively": see col. 2, lines 6-10).

Thus, the Winkler et al. patent provides motivation to one of ordinary skill in the art to employ, interchangeably, a light induced polymerization technique in the Dehlinger method technique for forming polymeric receptors for screening purposes.

Accordingly, it would have been obvious to one of ordinary skill in the art to utilize light induced polymerization in the Dehlinger reference method since the Winkler et al. reference teaches that light activation is a viable alternative in the context of a combinatorial array syntheses employing channels (e.g. microchannels) as utilized in the Dehlinger reference method.

Claims 1-6 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Dehlinger and Winkler patents as applied to claims 1-6 and 11 above, and further in view of Fodor et al. WO 92/10092 (6/92).

The combined teaching of the Dehlinger and Winkler patents as described in the above combination rejection over these two references is hereby incorporated by reference in its entirety.

The combined Dehlinger and Winkler patent teaching differs from the presently claimed invention by failing to explicitly teach the use of a (computer) programmable light source matrix e.g. to determine the patten of polymeric receptors (see present claims 9-10).

However, the Winkler et al. patent reference teaches that the Fodor method technique is "an elegant method ... for using a computer-controlled system to direct a VLSIPS TM procedure (e.g. see Winkler patent at col. 1-2, especially col. 2, lines 1-10). The Fodor method employs a computer programmable light source matrix in order to determine the patten of polymeric receptor(s)/ligand(s) binding . E.g see Fodor at pages 22-29; examples and claims.

Accordingly, the Winkler et al. patent reference provides motivation to one of ordinary skill in the art to employ the Fodor automated light strategy in order to achieve an elegant screening technique.

Thus, it would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention to modify the combined Dehlinger and Winkler patent teaching to employ the Fodor method use of a (computer) programmable light source matrix in order to determine the patten of polymeric receptors in an elegant manner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bennett Celsa whose telephone number is 703-305-7556. The examiner can normally be reached on 8-5.

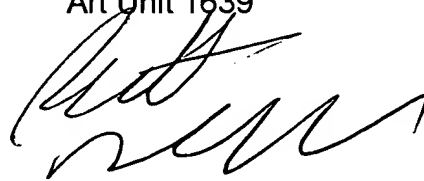
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on 703-306-3217. The fax phone numbers

Art Unit: 1639

for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Bennett Celsa
Primary Examiner
Art Unit 1639

A handwritten signature in black ink, appearing to read 'Bennett Celsa', written over the printed name and title.

BC
September 3, 2003